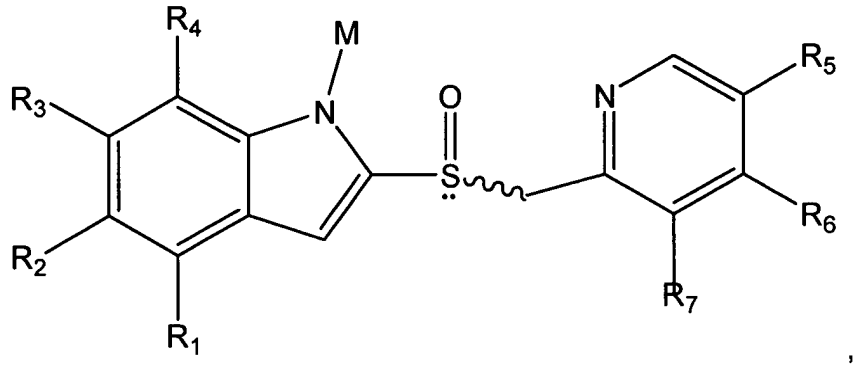
CLAIMS OF THE APPLICATION:

1. (Canceled)

2. (Currently amended) The process of claim ~~1~~ 64, wherein said ~~starting material~~ sulfoxide group-containing compound is a salt of the structure:




wherein M is an alkaline metal.

3. (Original) The process of claim 2, wherein M is sodium.

4. (Original) The process of claim 2, wherein $R_1$, $R_2$, $R_3$, and $R_4$ are hydrogen.

5. (Original) The process of claim 4, wherein $R_5$ is hydrogen and $R_7$ is methyl.

6. (Original) The process of claim 5, wherein $R_6$ is $-O(CH_2)_3OCH_3$.

7. (Original) The process of claim 5, wherein $R_6$ is $-OCH_2CF_3$.

8. (Original) The process of claim 2, wherein $R_1$, $R_3$, and $R_4$ are hydrogen; $R_2$ and $R_6$ are methoxy; and $R_5$ and $R_7$ are methyl.

9. (Original) The process of claim 2, wherein $R_1$, $R_3$, $R_4$, and $R_5$ are hydrogen; $R_2$ is difluoromethoxy; and $R_6$ and $R_7$ are methoxy.

10. (Original) The process of claim 2, wherein said step of providing comprises suspending said salt in said organic solvent.

11. (Currently amended) The process of claim ~~10~~ 64, wherein ~~said~~ the reacting of step b) ~~of forming a transition metal complex further~~ comprises reacting ~~said starting material~~ with said coordinating agent and said chelating agent in ~~a~~ the presence of an organic base.

12. (Currently amended) The process of claim ~~1~~ 64, wherein said at least one different physical property is solubility of said adducts in said organic solvent.

13. (Currently amended) The process of claim 12, wherein said step of separating said adducts comprises precipitating ~~the~~ a less soluble adduct under conditions in which ~~the~~ a more soluble adduct remains substantially in solution.

14. (Currently amended) The process of claim 13, wherein said step of treating ~~said less soluble~~ a separated adduct comprises suspending said ~~less soluble~~ adduct in an aqueous/organic solvent mixture under acidic or basic conditions.

15. (Currently amended) The process of claim 14, wherein said step of treating ~~said less soluble~~ a separated adduct comprises reacting with sodium bicarbonate.

16. (Currently amended) The process of claim ~~12~~ 13, further comprising decomposing ~~said~~ a ~~transition metal complexation of said~~ more soluble adduct to obtain ~~a second~~ an optical isomer of said sulfoxide compound different from ~~said first~~ an optical isomer obtained from ~~the~~ a less soluble adduct.

17. (Currently amended) The process of claim 16, further comprising racemizing ~~said second~~ an optical isomer obtained from a more soluble adduct to obtain a mixture of different optical isomers having R and S configurations at the sulphur atom of the sulfoxide group.

18. (Currently amended) The process of claim ~~1~~ 64, wherein said organic solvent is a ketone, an ester of an organic acid, a nitrile, or mixture thereof.

19. (Currently amended) The process of claim ~~1~~ 64, wherein the organic solvent is acetone, ethyl acetate, acetonitrile, or mixture thereof.

20. (Currently amended) The process of claim ~~1~~ 64, wherein said chelating agent is diethyl tartrate.

21. (Original) The process of claim 11, wherein said organic base is an organic amine base.

22. (Currently amended) The process of ~~claims~~ claim 21, wherein said organic amine base is di-isopropyl ethyl amine, tri-ethyl amine, or mixture thereof.

23. (Currently amended) The process of claim ~~1~~ 64, wherein said coordinating agent is titanium (IV) isopropoxide.

24. (Currently amended) The process of claim ~~1~~ 64, wherein said organic acid is L-mandelic acid.

25. (Currently amended) The process of claim ~~1~~ 64, wherein said organic acid is D-mandelic acid.

26. (Original) The process of claim 10, wherein the organic solvent is an alkyl ketone.

27. (Original) The process of claim 26, wherein said alkyl ketone solvent is selected from the group consisting of acetone, ethyl methyl ketone, methyl isobutyl ketone, diethyl ketone, or mixtures thereof.

28. (Original) The process of claim 26, wherein said alkyl ketone solvent is acetone.

29. (Currently amended) The process of claim ~~1~~ 64, wherein the organic acid or salt thereof is added while stirring for about 15 minutes to about 5 hours at about ambient temperature.

30. (Original) The process of claim 14, wherein said aqueous/organic solvent mixture includes organic solvents selected from the group consisting of chloroform, dichloromethane, dichloroethane, carbon tetrachloride, or mixtures thereof.

31. (Original) The process of claim 30, wherein said aqueous/organic solvent mixture includes dichloromethane.

32. (Currently amended) The process of claim ~~1~~ 64, wherein said separation step comprises filtration.

33. (Currently amended) The process of claim ~~1~~ 64, further comprising converting the optical isomer obtained from one of the adducts into its salt form.

34. (Currently amended) The process of claim 33, wherein the salt ~~of said one of said optical isomers of said sulfoxide compound, in a substantially optically pure or optically enriched form,~~ is an alkaline salt or alkaline earth salt.

35. (Currently amended) The process of claim 33, wherein the salt ~~of said one of said optical isomers of said sulfoxide compound, in a substantially optically pure or optically enriched form,~~ is ~~salt of~~ a magnesium, sodium, or potassium salt, or ~~hydrates~~ a hydrate thereof.

36. (Currently amended) The process of claim ~~1~~ 64, wherein said starting material is omeprazole.

37. (Original) The process of claim 36, wherein said chiral organic acid is L mandelic acid.

38. (Original) The process of claim 37, wherein said chelating agent is diethyl D tartrate.

39. (Original) The process of claim 36, wherein said chiral organic acid is D mandelic acid.

40. (Original) The process of claim 37, wherein said chelating agent is diethyl L tartrate.

41. (Currently amended) The process of claim 36, ~~wherein said product is~~ producing an R enantiomer of omeprazole.

42. (Currently amended) The process of claim 36, ~~wherein said product is~~ producing an S enantiomer of omeprazole.

43. (Currently amended) The process of claim 41, wherein said R enantiomer of omeprazole has an optical purity greater than about 99.7%.

44. (Currently amended) A process of separating the enantiomers of omeprazole, said process comprising:

providing a suspension of a salt of omeprazole in an alkyl ketone solvent; reacting said salt of omeprazole with titanium (IV) isopropoxide and diethyl D-tartrate in the presence of an organic base;

reacting the product of said reaction with L mandelic acid;

maintaining the reaction mixture until a solid mass separates;

wherein said solid mass ~~being~~ is a mandelic acid salt of a titanium complex of the S enantiomer of omeprazole.

45. (Original) The process of claim 44, further comprising filtering said solid mass.

46. (Currently amended) The process of claim 45, further comprising reacting said mandelic acid salt with an aqueous base thereby obtaining a residue, which is a free ~~species of~~ esomeprazole.

47. (Currently amended) The process of claim 45, further comprising re-precipitating said residue from a mixture of water and acetone to obtain a solid that is an amorphous form of free ~~species of~~ esomeprazole.

48. (Currently amended) The process of claim ~~45~~ 46, further comprising reacting said free ~~species of~~ omeprazole with a magnesium metal in the presence of dichloromethane in an alcoholic solvent thereby obtaining a residue of a magnesium salt of esomeprazole.

49. (Original) A magnesium salt of esomeprazole produced by the process of claim 48.

50. (Original) The process of claim 48, further comprising dissolving said residue of magnesium salt of esomeprazole in acetone and lowering the temperature of said acetone solution to cause the magnesium salt of esomeprazole to precipitate therefrom.

51. (Original) A magnesium salt of esomeprazole produced by the process of claim 50.

52. (Original) The process of claim 48, wherein said alcoholic solvent is methanol.

53. (Original) The process of claim 45, wherein said ketone is acetone.

54. (Original) The process of claim 45, wherein said organic base is di-isopropyl ethyl amine, triethyl amine, or mixture thereof.

55. (Original) The process of claim 46, wherein said aqueous base is a solution of sodium bicarbonate in water.

56. (Original) The process of claim 55, wherein said sodium bicarbonate is present in said solution at a concentration of about 5% by weight.

57. (Currently amended) ~~A compound which the amorphous~~ Amorphous esomeprazole produced by the process of claim 47.

58. (Currently amended) A pharmaceutical composition comprising i) a therapeutically effective amount of ~~the~~ amorphous esomeprazole produced by the process of claim 47; and ii) one or more pharmaceutically-acceptable excipients.

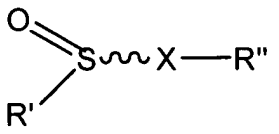
59. (Original) The pharmaceutical composition of claim 58, which is a solid dosage form for oral administration.

60. (Original) The pharmaceutical composition of claim 59, wherein said solid dosage form is a tablet.

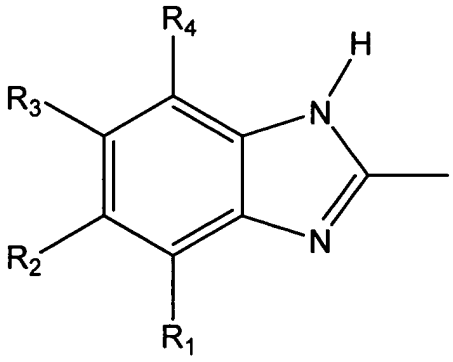
61-63. (Canceled)

64. (New) A process for separating optical isomers, comprising:

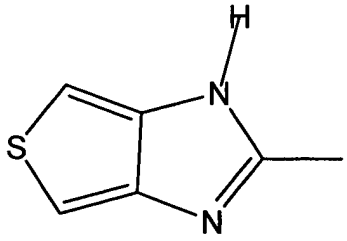
a) providing in an organic solvent a mixture of optical isomers of a sulfoxide group-containing compound of the structure:



wherein R' is

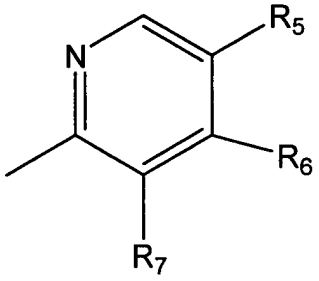


or



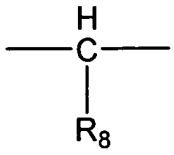
;

R" is

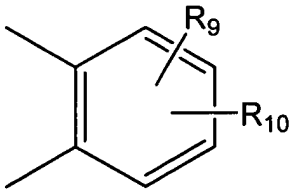


;

and X is



or



;

where $R_1$, $R_2$, $R_3$, and $R_4$ are each independently hydrogen, alkyl, alkoxy, halogen, halogenated alkoxy, alkylcarbonyl, alkoxycarbonyl, oxazolyl, or trifluoroalkyl;

$R_5$, $R_6$, and $R_7$ are each independently hydrogen, alkyl, halogenated alkyl, alkylthio, halogenated alkylthio, alkoxy, halogenated alkoxy, alkoxyalkoxy, dialkylamino, piperdino, morpholino, halogen, phenylalkyl or phenylalkoxy;

$R_8$ is hydrogen or lower alkyl;

$R_9$ and $R_{10}$ are each independently hydrogen, halogen, alkyl or alkoxy;

or a salt thereof, said optical isomers having R and S configurations at the sulfur atom of the sulfoxide group;

b) reacting the mixture of optical isomers with i) a coordinating agent containing a transition metal, and ii) a chelating agent, to form transition metal complexes at the sulfoxide group;

c) reacting transition metal complexes with an organic acid, or a salt thereof, to form an addition product, wherein at least one of said chelating agent and said organic acid contains a chiral center and is in a substantially enantiomerically pure form, each of said transition metal complexes of said optical isomers forming an adduct with said organic acid or a salt thereof and the different adducts having at least one physical property in which they differ from one another;

d) separating one adduct from another adduct based on said at least one physical property; and

e) treating a separated adduct with an acid or base to decompose said transition metal complex at said sulfoxide group, to recover an optical isomer of the sulfoxide group-containing compound.